

# WELCOME

Ottewell Flood Mitigation Project

**OPEN HOUSE**



# PROJECT OVERVIEW

The Ottewell Flood Mitigation Project has been initiated to reduce the risk of flooding in the neighbourhood.

The Ottewell neighbourhood is primarily serviced with a mix of combined sanitary and storm lines, and some separate storm lines. There is no stormwater management facility in the neighbourhood, and the current overland (or surface drainage system) is not effective. There are several areas in this neighbourhood where water can pool during intense rainfall, which puts the Ottewell community at a higher risk of flooding.

To reduce flood risk, various stormwater infrastructure, including sewer separation, is being installed or upgraded within the neighbourhood. EPCOR will also construct a dry pond in the green space east of Braemar School. Low Impact Development (LID) will also be installed as part of the project.

This project has been broken down into two stages:

- Phase One – Sewer upgrades (2024 – 2027)
- Phase Two – Dry pond construction (May 2025 – December 2025)

This project is part of EPCOR's Stormwater Integrated Resource Plan (SIRP) which aims to reduce the risk of flooding in Edmonton neighbourhoods and is funded in part by the Government of Canada's Disaster Mitigation and Adaptation Fund (DMAF)

*Please note this timeline is an estimate and is pending approvals, permitting, materials availability, construction conditions and weather. Notification will be provided to residents adjacent to the work area before construction begins and will include details of traffic accommodations, construction impacts, and timelines.*



# PROJECT BACKGROUND

EPCOR worked with a design consultant to model the hydraulics of the neighbourhood in its current condition to identify the areas that are at risk of significant flooding in a severe rain event (the 1 in a 100 year storm). These results, in addition to the historical records of surface flooding and flood survey data, have determined that the existing combined sewer system, built in the early 1960s, is insufficient to meet the current drainage standards. Due to the limited capacity of the existing combined sewer, large rainfall results in ponding on the surface and surface flooding, as well as significant sewer backup risks to the neighbourhood. In order to address the lack of capacity within the drainage system, storm sewers will be installed throughout key areas of the neighbourhood. The upgrades will allow rainfall to be stored in the sewer system until there is room in the sewers to transport the water to the river.





# UPGRADES AND BENEFITS

## WHAT ARE THE BENEFITS OF A SEPARATED STORM WATER AND SANITARY SYSTEM?

- Combined sewers carry both the domestic wastewater from homes and the stormwater drainage from streets. Separating the storm flows from the combined system means there is less flow in the sewers during rainfall and therefore a reduced risk of basement flooding and sewer backups in homes.
- It also reduces downstream combined sewer overflow to the river where during intense rainfall, raw combined sewer flows can discharge directly to the river.
- Further, this reduces the amount of rainfall in combined sewers that ends up at the Gold Bar Waste Water Treatment Plant that receives unnecessary treatment.
- It also can reduce odour since the catch basins are disconnected from waste flows in addition to improving stormwater system performance by providing new pipes and catch basins designed to modern standards.

## STORM WATER INFRASTRUCTURE UPGRADES – 2025

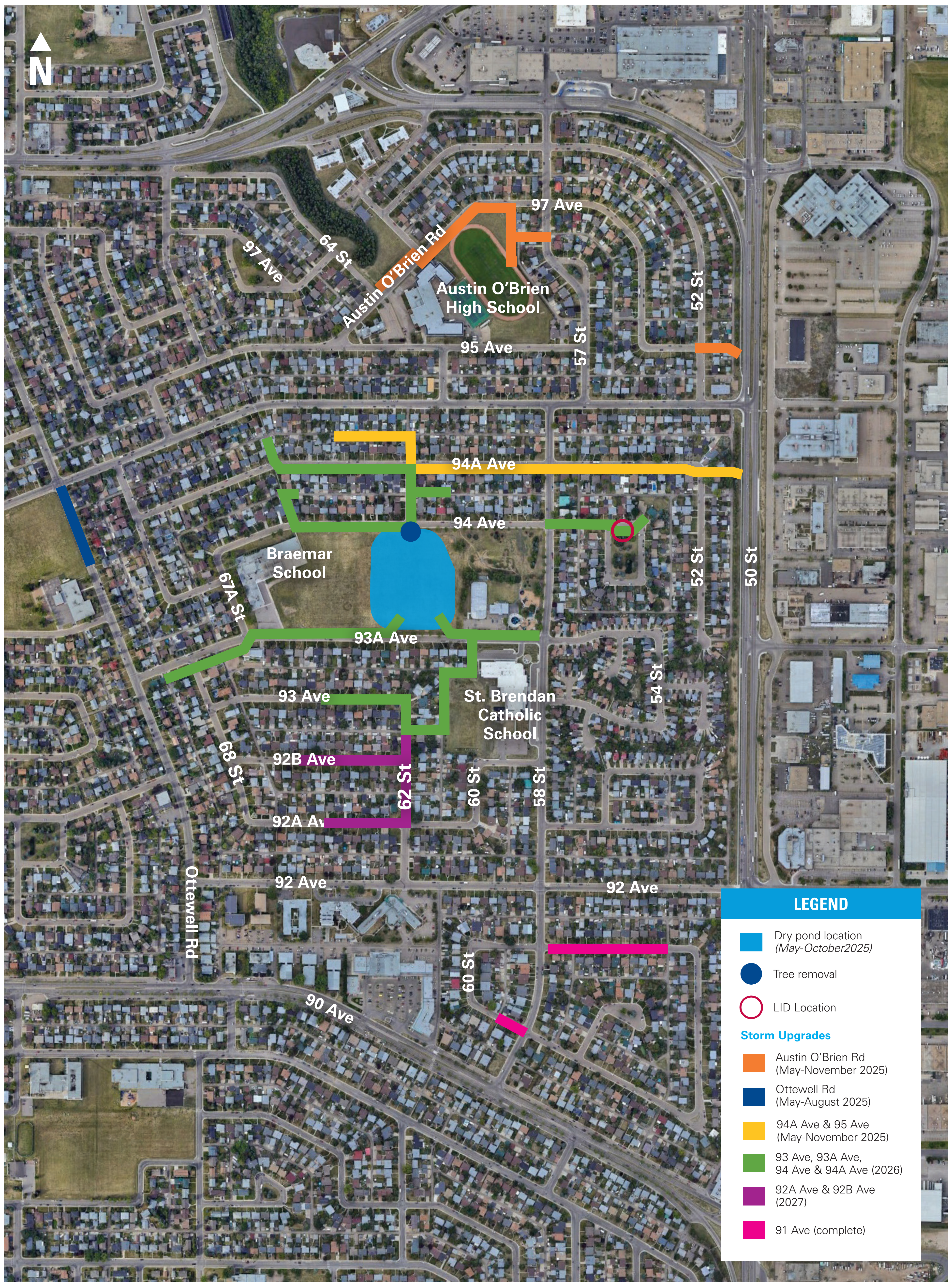
In 2025, EPCOR will continue storm infrastructure upgrades in Ottewell alongside work to construct the dry pond. EPCOR will be performing upgrades in the following areas:

- 94A Avenue between 50 street and 62 Street;
- 95 Avenue east of 52 street;
- Ottewell Road between 94B Avenue and north of 94 Avenue; and
- Austin O'Brien Road between 62 Street and 57 Street.

In order to connect the future dry pond to the new storm drainage system, various storm infrastructure upgrades are required. Construction on the sewer upgrades began in 2024 and will be completed by the end of 2027.



# OVERALL PROJECT MAP



*This project is funded in part by the Government of Canada*



# PARTNERS IN FLOOD RESILIENCE

**EPCOR and City of Edmonton collaborate on homeowner and community flood resilience programs**

## HOME OWNER

- Conducts home flood proofing, including property grading and backwater valve installation and maintenance
- Obtains insurance (where available)

## EPCOR

- Protects the region's water supply and critical utility infrastructure
- Helps secure against stormwater and secondary flooding
- Provides programs to help homeowners secure their property
- Supports emergency response and recovery

## CITY OF EDMONTON

- Regulates land use and development activity including public lands
- Regulates ratepayer-funded utility programs
- In an emergency, leads locally and reports to provincial Emergency Operations Centre

To reduce impacts to the community, timelines for sewer upgrades are being coordinated with the City of Edmonton's Building Great Neighbourhoods program. For more information about the City of Edmonton's work in Ottewell, residents can contact 311.



# PROJECT STAGES

EPCOR has met with Ottewell Community League, Edmonton Public Schools, Edmonton Catholic School District, and has provided project information and updates to impacted residents of Ottewell.

Before construction begins, further notification will be provided to impacted residents before work begins and will include details of traffic impacts, timelines and schedule where possible.

EPCOR will work with residents to understand individual impacts related to this work, such as garbage pick-up, accessibility issues and other needs, and will work to determine mitigations on a case-by-case basis.





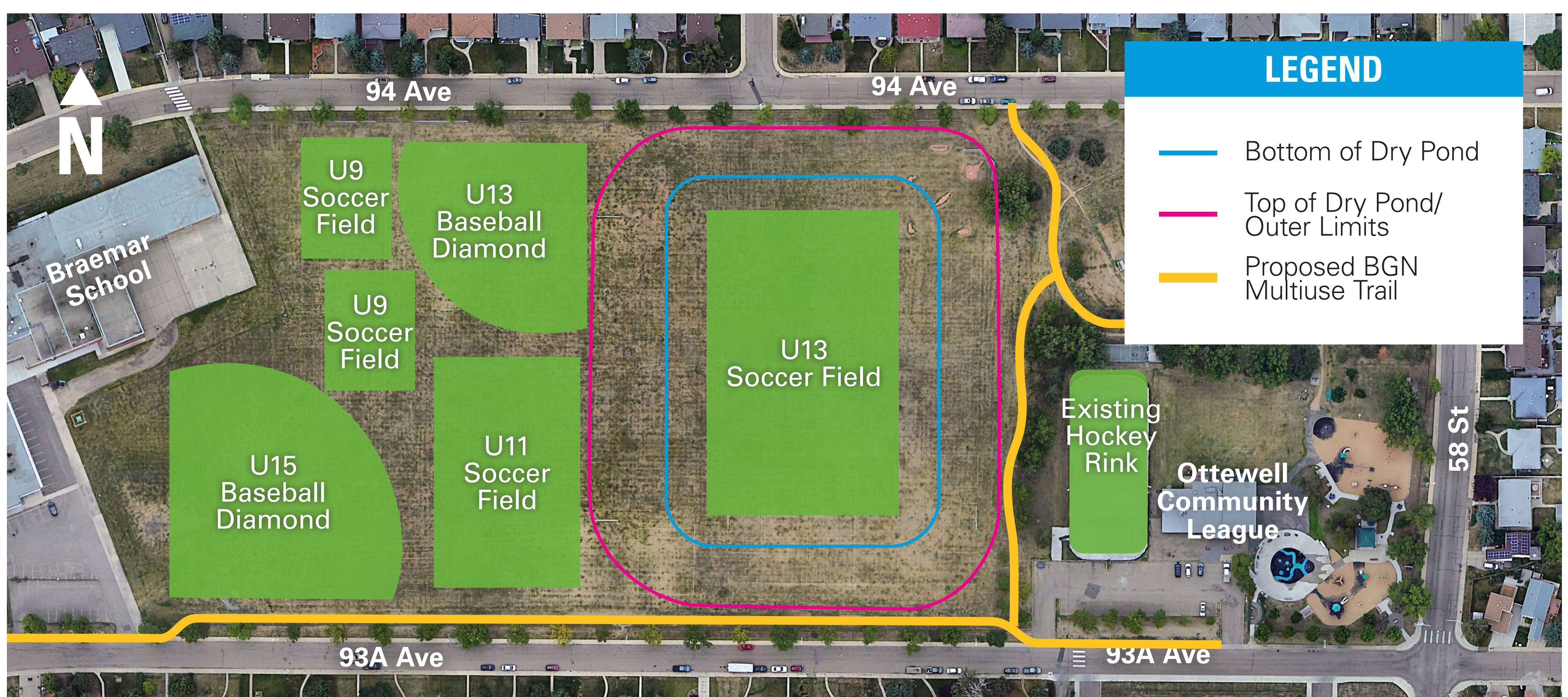
# OVERVIEW OF DRY POND CONSTRUCTION

Dry ponds typically contain recreational amenities, such as soccer fields and baseball diamonds, which can be used when the pond is dry (the vast majority of the time). **The final dry pond design has been approved by the City of Edmonton, and all existing amenities will be replaced within the dry pond area.** Some amenities will be reoriented or relocated to another area within Ottewell Park.

## CURRENT AMENITIES LAYOUT



## AMENITIES LAYOUT AFTER CONSTRUCTION



It is EPCOR's responsibility to build the dry pond and maintain the underground drainage infrastructure. However, once the project is complete, the ownership and responsibility for maintenance of the dry pond surface, vegetation and recreation amenities will rest with the City of Edmonton.



# DRY POND CONSTRUCTION SCHEDULE

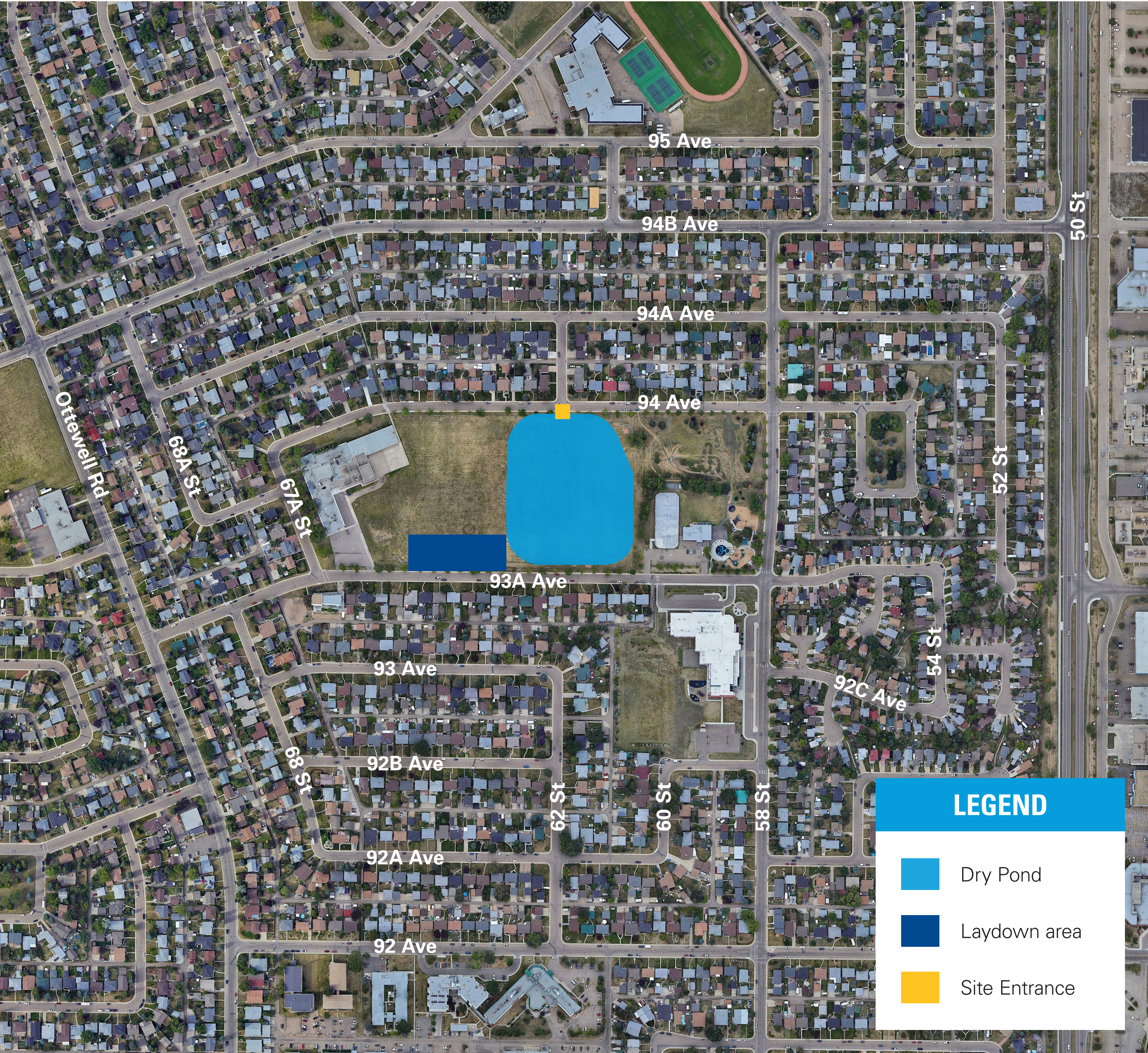
Construction of the dry pond is anticipated to begin in May 2025 and be complete in December 2025. Once construction is complete, the dry pond will remain fenced to allow for the landscaping to establish.

*Please note, this timeline is an estimate and exact timing depends upon approvals, permitting, contractor timelines, and construction conditions. More information will be provided to residents as the project progresses.*

No road closures are expected during the construction of the dry pond; however, there will be an increased presence of tandem trucks and other construction equipment entering and exiting the site.

The access area of the site is located between the dry pond area and the laydown area off 94 Avenue. The topsoil will first be removed from the pond surface and hauled offsite. Once the removal of the top soil is complete, a survey crew will layout the design and the pond excavation will begin. The installation of the sub-drain collection system will be done as sections of the pond are completed. After the sub-drain collection system has been installed, the remaining landscaping work will be done which will include topsoil, sod, recreation amenities and other fixtures.

## MAP OF DRY POND CONSTRUCTION WORK AREA



*This project is funded in part by the Government of Canada*



# WHAT IS A DRY POND?

Dry ponds are stormwater management facilities, which are designed to temporarily hold stormwater when the drainage system cannot handle the water volumes due to severe storm events. The water will then drain from the dry ponds into the downstream drainage system when there is capacity.

Severe storm events can be very intense for a short period of time in a localized area causing flooding of roads, properties and sewer backup in basements.

The sides of the dry pond will be gently sloped, ranging from five to seven feet in horizontal length for every one foot of vertical drop. Water will drain from the dry pond by gravity through drains built into the pond. The grates for the drains

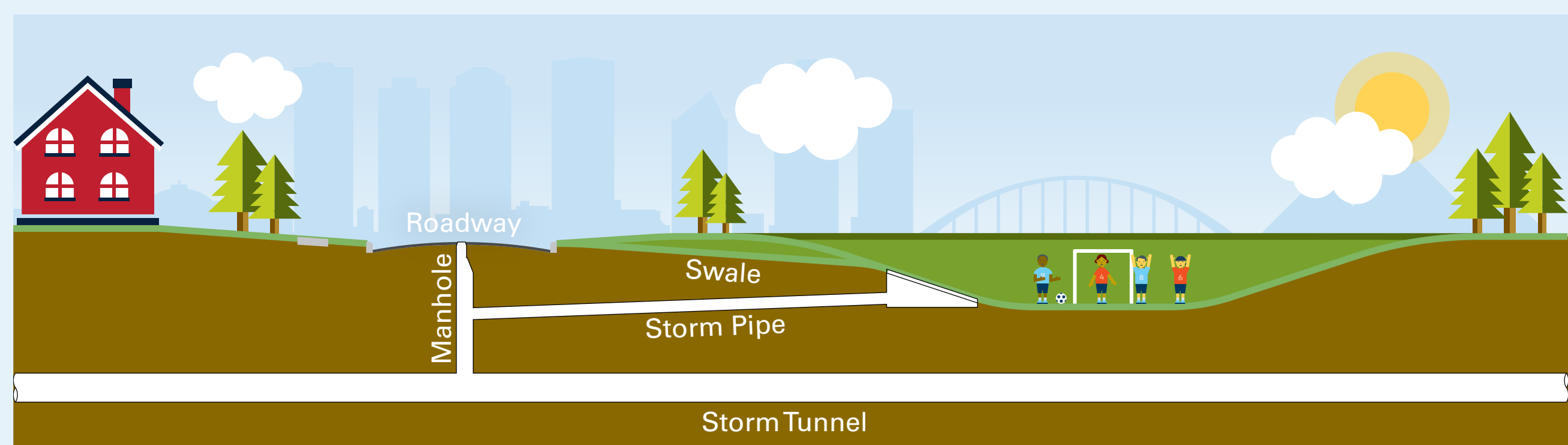
are designed to consider the safety of children and pets that may use the space. Water that is collected in the dry pond during severe storms can take anywhere from one to four hours to drain.

The inlet to the dry pond will include oil and grit separation and fine particulate filtering to keep the sports field and park area clean, while also improving water runoff quality passing into the storm sewer and ultimately to the North Saskatchewan River.

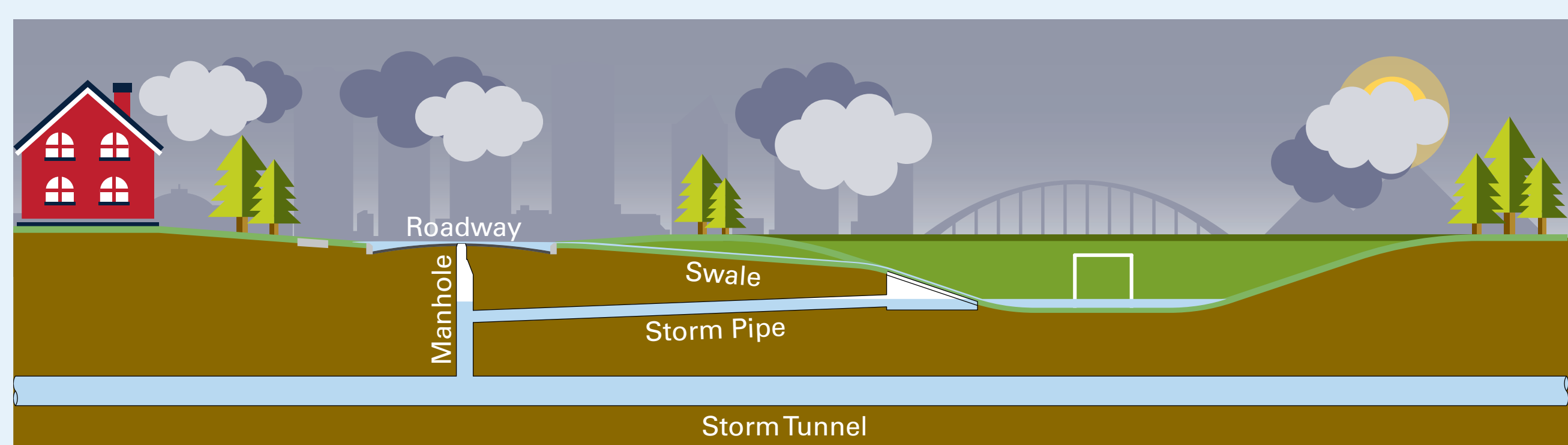
It is EPCOR's responsibility to build the dry pond and maintain the underground drainage infrastructure. However, the ownership and maintenance of the dry pond surface, vegetation and amenities is a City of Edmonton responsibility once the project is complete.

## HOW DO DRY PONDS WORK?

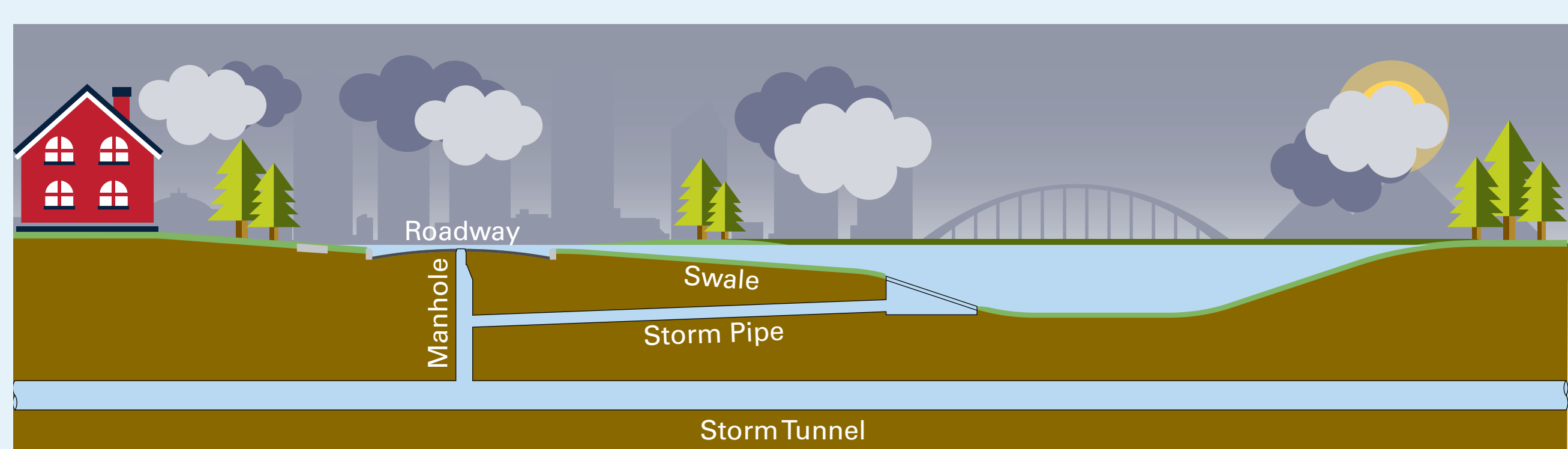
### Empty Dry Pond



### Rain Intensifies and Pond Starts to Fill



### Storm Event Peaks and Pond Fills



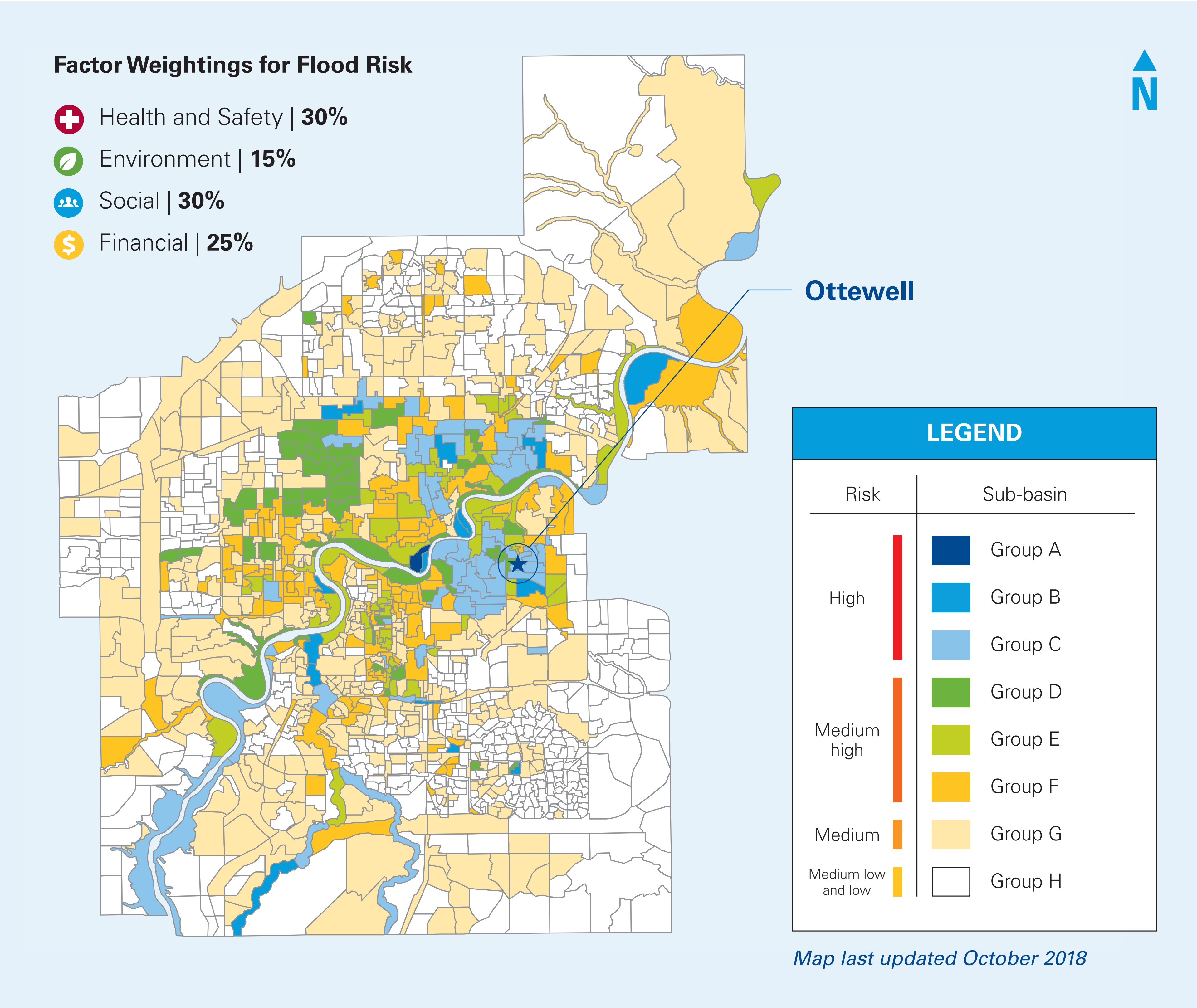


# EPCOR'S STORMWATER INTEGRATED RESOURCE PLAN (SIRP)

## A Risk-based Approach to Evaluating Community Flood Risks

### 20 – 30 year, \$1.6 billion, City-wide Strategy to:

- SLOW stormwater entry into drainage by absorbing it and holding it in green infrastructure
- MOVE excess water away quickly and efficiently
- Help SECURE against sewer backups, overland and river flooding
- PREDICT and manage the movement of stormwater
- RESPOND through the fast rollout of flood barriers, traffic diversions and public communications





## WHAT WILL CONSTRUCTION LOOK LIKE?

A large part of the sewer upgrade work will be completed using open-trench construction.

Open-trench construction is a method in which the surface area is excavated to install new infrastructure. A significant portion of the work for this project will include this type of construction to install the new drainage infrastructure.

Open-trench construction requires a large area to accommodate trenching; therefore, we usually need to close roads and sidewalks.

Due to the amount of material and equipment required, there is often a laydown area needed on the site, which may cause a large portion of a road and/or sidewalk to be closed, or disrupt a greenspace area that is normally be used for recreation.

To reduce the impacts to the community, EPCOR will be coordinating the construction for the flood mitigation project with the City of Edmonton's Neighbourhood Renewal construction. The City's construction is currently underway to rehabilitate residential roads, replace street lights, sidewalks, curbs and gutters and add missing sidewalk links where possible.



Example of open cut construction used during sewer construction

*This project is funded in part by the Government of Canada*



# WHAT CAN I EXPECT DURING CONSTRUCTION?

## Safety & Security

- Safety is our first priority for our site workers and community members. All work areas will be fenced off and secured, and flagging personnel will be used where necessary.
- As some of the construction worksites are in close proximity to schools, the sites will utilize fencing and site hoarding material to block visibility and deter activity around the site.
- EPCOR will work with schools to promote safe performance around construction sites.
- EPCOR will also provide information to schools to provide to parents through the schools via public notices.
- Detours will be created for any sidewalk/pedestrian crossing closures.

## Noise Control

- Work will create typical noise associated with construction. We will take steps to decrease noise and meet City noise standards.
- Noise abatement measures will be utilized; however, construction noise should be anticipated.

## Traffic

- Some construction may impact access to front facing driveways during construction.
- Heavy trucks and equipment will be moving through residential streets.
- Traffic impacts, such as road closures or detours, may be required to accommodate worksites.
- Vehicles related to the construction may be parked on the road near the construction sites.
- No parking signs may also be placed in certain areas.

## Hours of Work

- Typical hours of work will be **7:00 a.m. to 7:00 p.m. Monday – Saturday**. If required, these hours may be adjusted or extended, and construction may occur on **Sundays from 9:00 a.m. to 5:00 p.m.**
- Haul times will be restricted during pick-up and drop-off times at worksites near Braemar School and St. Brendan School.

## Construction Lights

- Lighting structures will be placed low within the worksite to minimize light from spilling outside the worksite.

## Visible Construction Equipment

- You can expect to see activity that is typical to construction, including company/contractor vehicles and equipment.
- The contractor may use a combination of excavators, loaders, skid steers, cranes, and tandem trucks, as well as other equipment.

# WHAT CAN I EXPECT DURING CONSTRUCTION?

## Green Space Closure

- The worksite for the dry pond in Ottewell Park will use a significant portion of the sports field and will be closed to the public during construction.
- A portion of the green space will be used as a laydown area to accommodate the sewer separation work taking place in advance of the dry pond construction.
- Once the dry pond is complete, the area will be fenced until the landscaping has been established and the landscaping passes final inspection by the City of Edmonton.

## Utility Relocations

- Some existing utilities, such as water lines, may need to be moved prior to construction beginning. Additional information will be provided to affected residences.

## Tree Trimming, Removal and Replacement

- Some trees and vegetation may require trimming or removal prior to work beginning.
- EPCOR is working with the City of Edmonton Urban Forestry department and removal/trimming will only be done where absolutely necessary.
- Once construction is complete, the City of Edmonton Urban Forestry department will determine the number of trees to be replaced and the replacement locations



# THANK YOU

We are committed to keeping you up to date as this project progresses so you are aware of the possible impacts from the work. Should you have any additional questions about this project, please contact us.

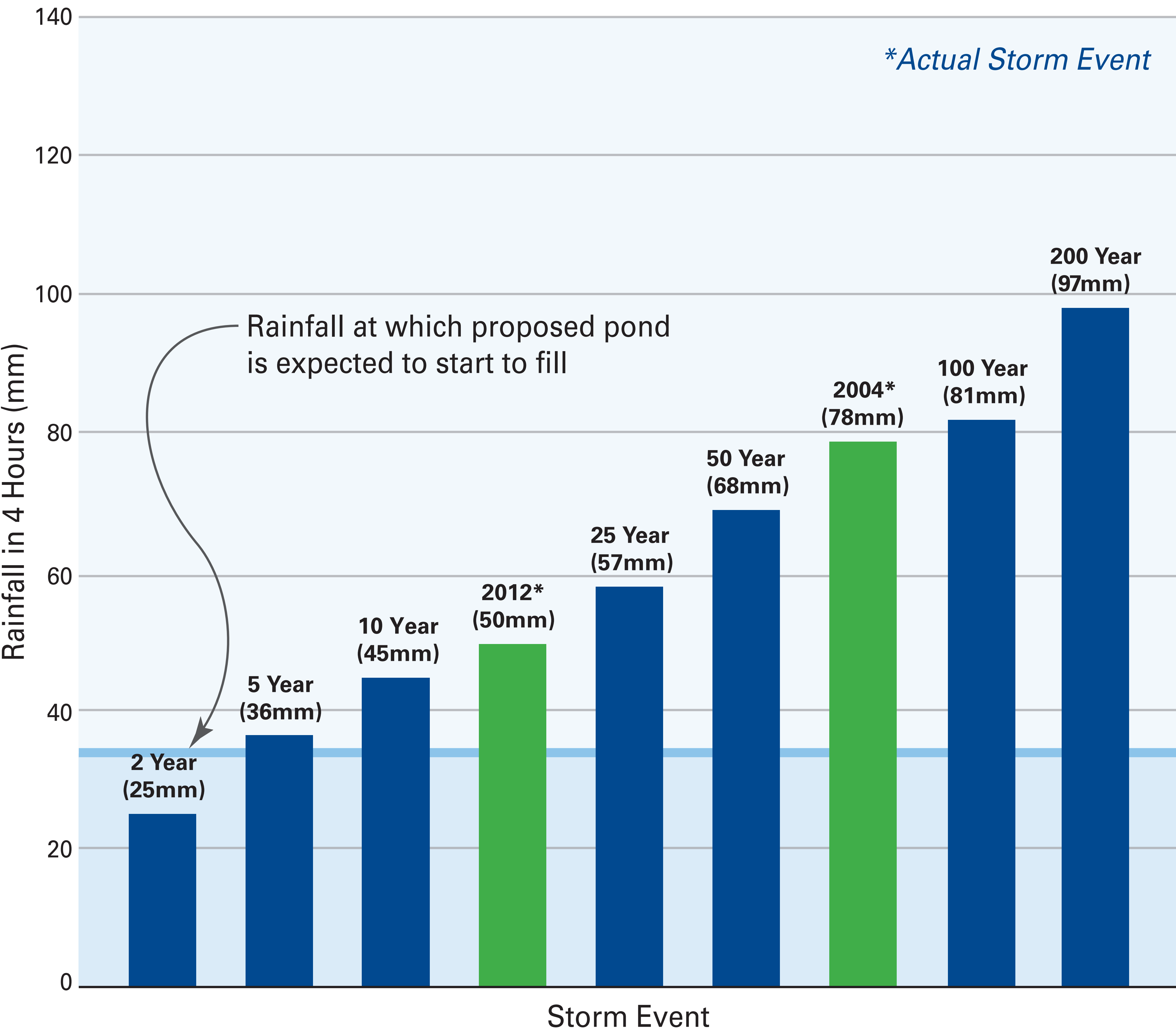
## **EPCOR Public & Community Engagement**

**Phone:** (780) 412-4200

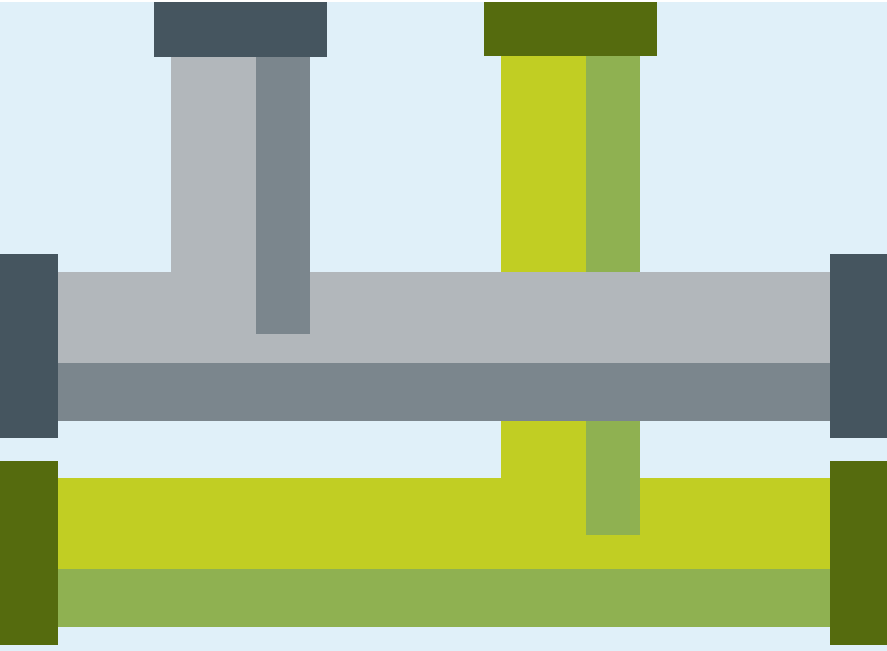
**E-mail:** [EPCORprojects@epcor.com](mailto:EPCORprojects@epcor.com)



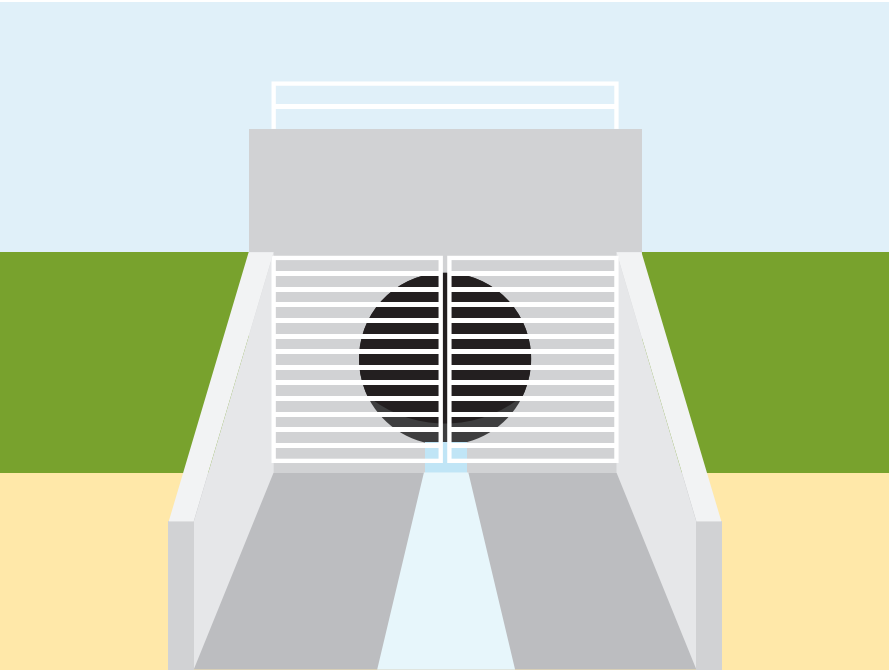
# SEVERE RAINFALL (STORM EVENTS)



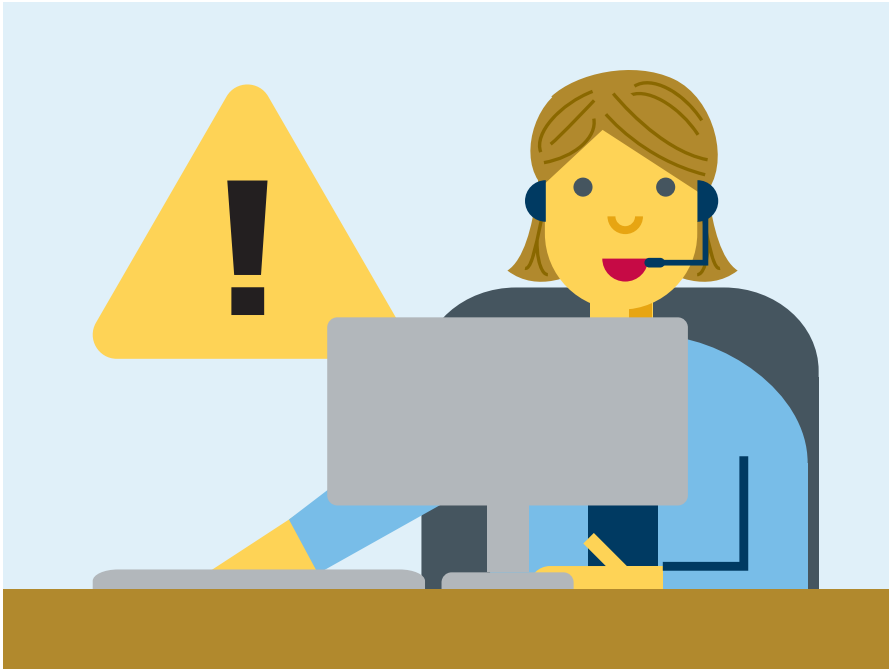
# SIRP FLOOD MITIGATION OPTIONS



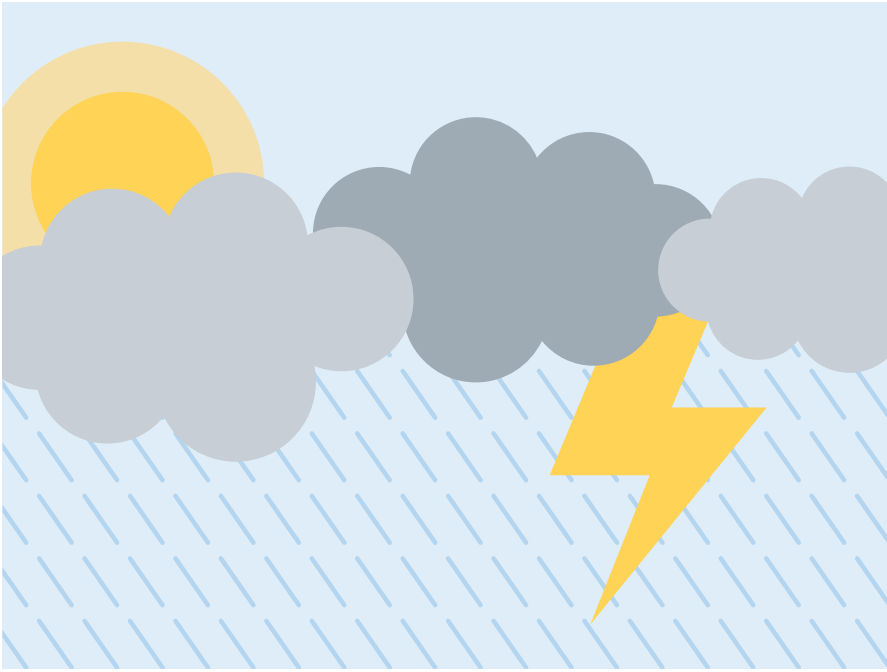
Trunks and sewer separation



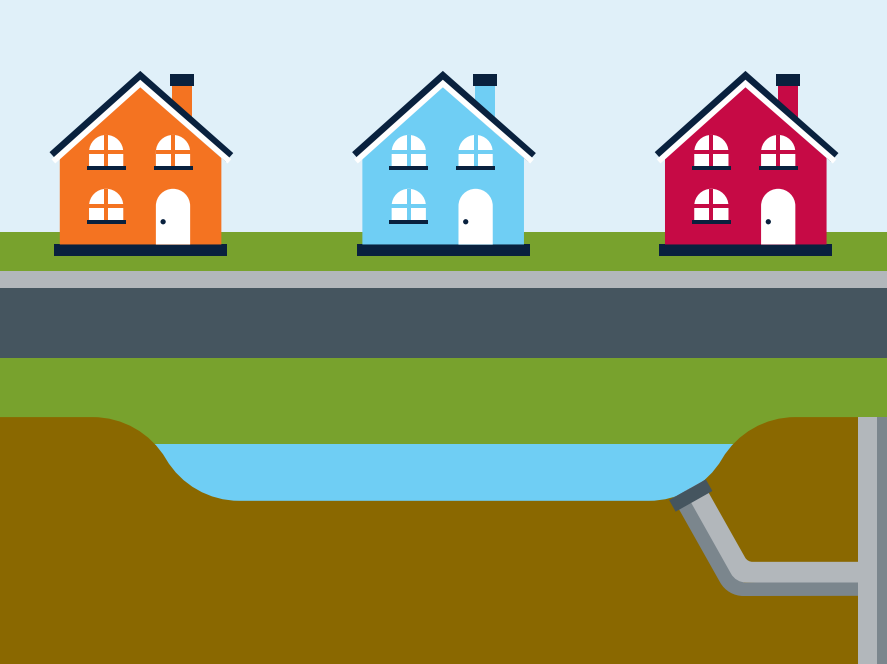
Outfalls and control gates



Emergency response



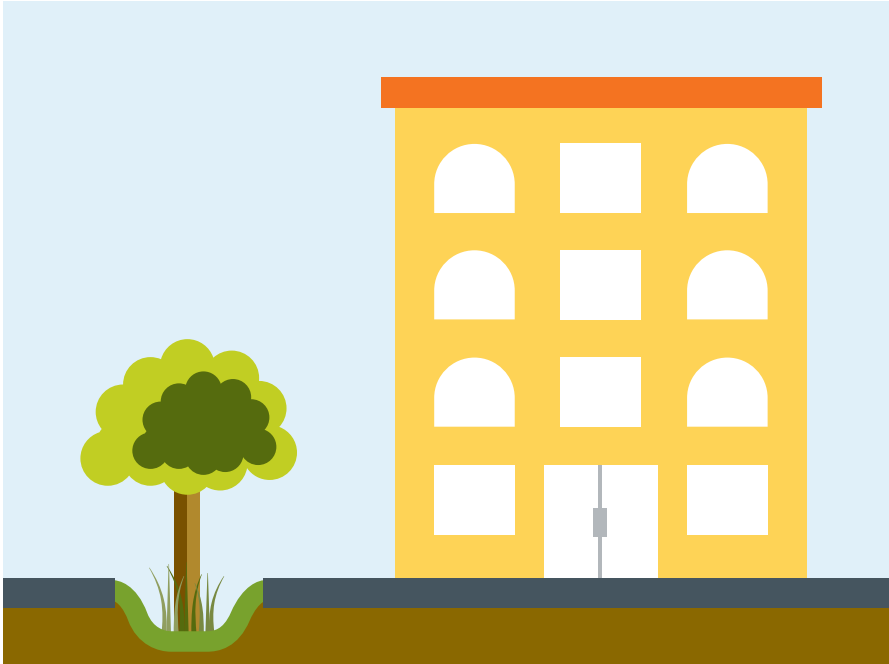
Weather forecasting



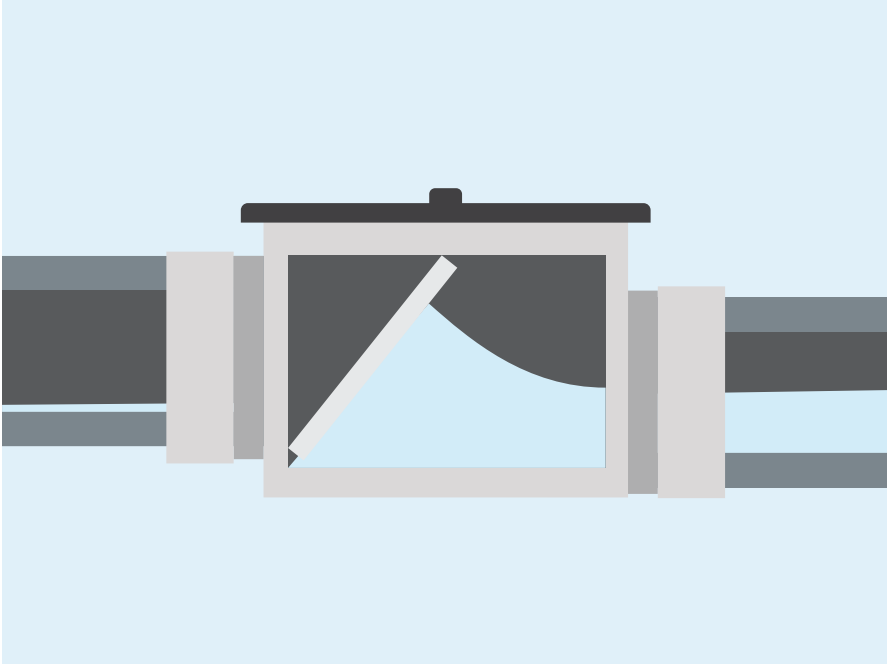
Dry ponds



Maintenance programs



Low-impact developments

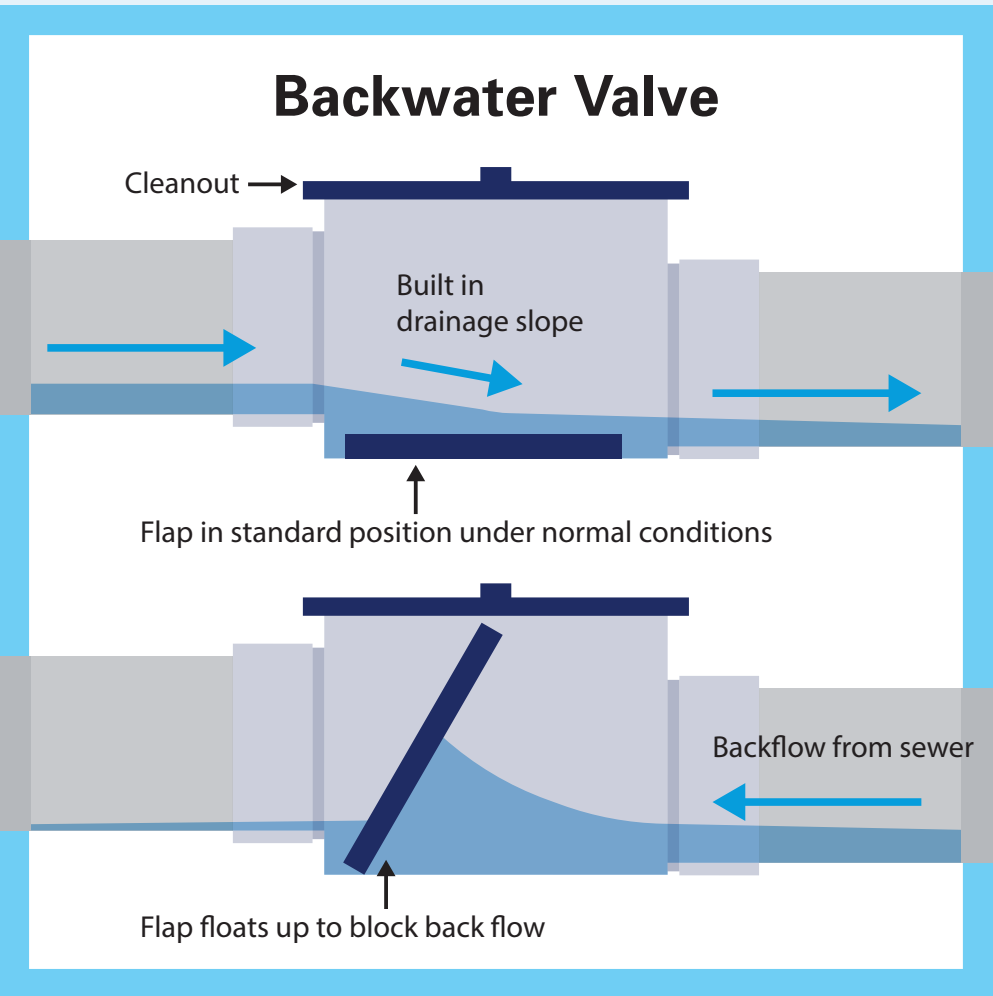


Homeowner responsibilities

## HOMEOWNER FLOOD PROTECTION PROGRAM (EPCOR-FUNDED)

### Epcor Offers a Free Home Inspection and Report

- Includes an inspection of both the interior and exterior of a home
- Takes approximately 1.5 hours to complete
- Most beneficial from April to October (external inspections)
- Residents will receive a report with recommendations on how they can improve the flood protection of their home



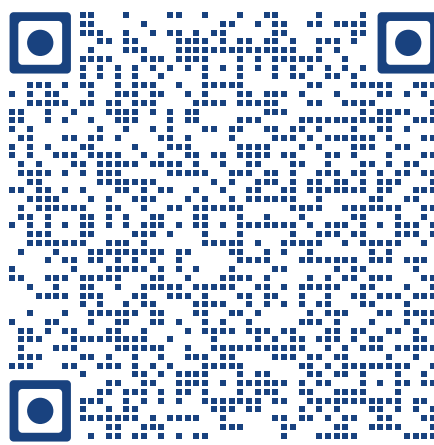
### EPCOR also Offers:

**Backwater Valve Subsidy** — up to \$800 for interior or exterior backwater valve installation for eligible residents

EPCOR is working on additional flood prevention options over the next several years. We're looking forward to sharing more information as these projects develop.

**Book online!** Book a free flood prevention inspection with one of our advisors online.

**Contact us** at [floodprevention@epcor.com](mailto:floodprevention@epcor.com) or visit [epcor.com/floodprevention](http://epcor.com/floodprevention) to learn more.





# LOW IMPACT DEVELOPMENT (LID)

Low Impact Development (LID) will be incorporated as part of the Ottewell Flood Mitigation Project.

## What is Low Impact Development?

Low impact development (LID) is green infrastructure with landscaped features that help to reduce and slow flows in the storm system. It is designed to manage stormwater close to its source and prevent it from entering the system directly during heavy rainfall. These facilities will reduce the volume and speed of stormwater entering the system by retaining some of the rainfall, allowing it to enter the ground and be filtered by soil so the stormwater is not all going directly into the underground system and overwhelming it.

## How LID Works

The objectives of LID facilities are to minimize the extent, depth and duration of overland flooding where possible.

Once the water enters the catch basins it will flow through a perforated underground pipe network to distribute the water throughout the facility. Water will flow through the openings in the pipes and infiltrate into the newly planted engineered soil and plants. Any excess water will flow through a layer of rock into different perforated pipes that are connected to the existing underground storm system. All future maintenance of the LID facilities will be completed by EPCOR.

## Benefits of LID

The benefits to LID infrastructure are:

- To help reduce local flooding. In smaller rain events the amount of rain can be entirely absorbed by the plants and soil in the LID facility. In bigger storms, the LID facility slows the speed of the water entering the underground pipes which can help reduce the extent, depth and duration of overland flooding in our neighbourhoods.
- The soils and plants filter many pollutants and stop them from entering the underground pipes and ultimately to creeks and rivers improving water quality.
- The plants in an LID facility reduce the impact of heat reflecting from paved surfaces.



Example of LID infrastructure in Rideau Park

*This project is funded in part by the Government of Canada*